

# User's Information Manual

## NOTE TO INSTALLER

This manual should be left with the equipment owner.

### FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

### ⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

### FOR YOUR SAFETY

#### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

### ⚠ WARNING

Before performing recommended maintenance, be sure main power switch to unit is turned off. Electrical shock could cause personal injury.

Your rooftop combination heating/cooling unit is equipped with an automatic direct spark ignition and induced draft combustion blower.

### ⚠ WARNING

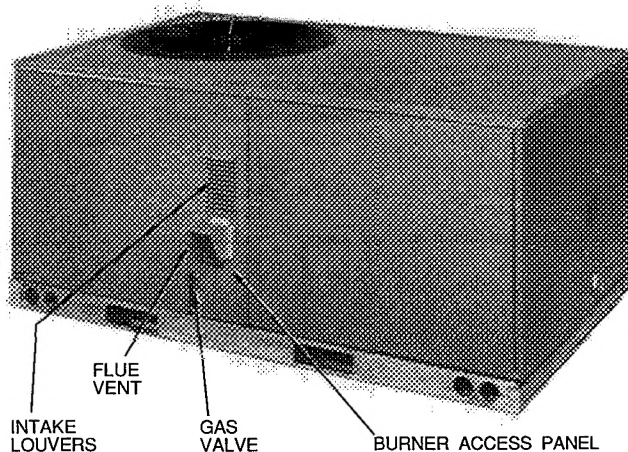
Do not attempt to light by hand; personal injury may result.

## TO LIGHT UNIT

### ⚠ DANGER

1. Do not turn off the electrical power to unit without first turning off the gas supply.
2. Before attempting to start the gas heating section, familiarize yourself with all the procedures that must be followed.

If you do not follow these instructions exactly, a fire or explosion may result, causing property damage, injury or loss of life.



**Fig. 1 — Gas Valve Location**

See Fig. 1 for location of gas valve. Refer to Fig. 2 while proceeding with the following steps.

**Step 1** — Set room thermostat to the lowest temperature setting and set SYSTEM switch to HEAT position.

**Step 2** — Close the manual gas valve.

**Step 3** — Turn off the electrical supply to the unit.

**Step 4** — Remove the burner compartment access panel.

**Step 5** — Turn the control dial on the gas valve clockwise to the OFF position and wait 5 minutes.

**Step 6** — Turn control dial on gas valve counterclockwise to the ON position.

**Step 7** — Replace the burner compartment access panel.

**Step 8** — Turn on the electrical supply to unit.

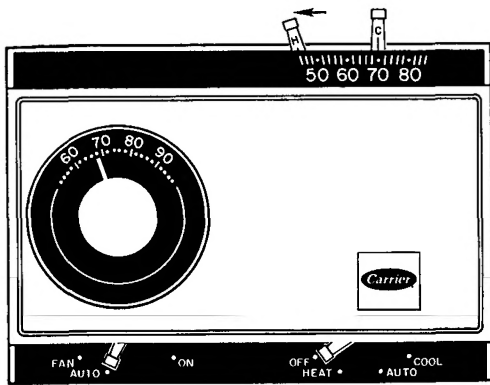
**Step 9** — Open the manual gas valve.

**Step 10** — Set room thermostat selector slightly above room temperature to start unit. The induced-draft combustion air fan will start. Main gas valve will open and main burners should ignite within 4 seconds. If the burners do not light, there is a 60 second delay before another 4 second try. If the burner still does not light, the time delay is repeated. If the burner does not light on the 11th attempt, there is a lockout. Repeat Steps 1 - 10. If burners still do not light, call for service.

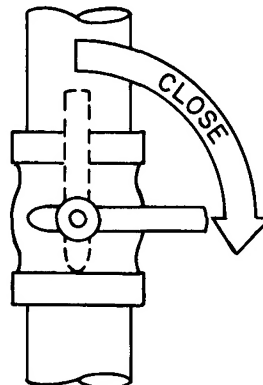
**Step 11** — Set the temperature selector on room thermostat to desired setting.

### ⚠ WARNING

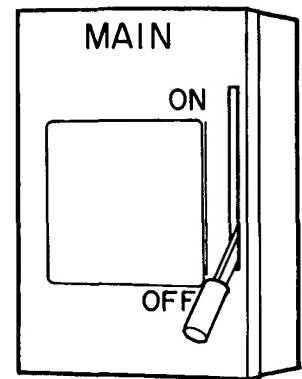
If the main burners fail to light, or the blower fails to come on, shut down gas heating section and call your dealer for service. Failure to follow these requirements could result in serious personal injury.



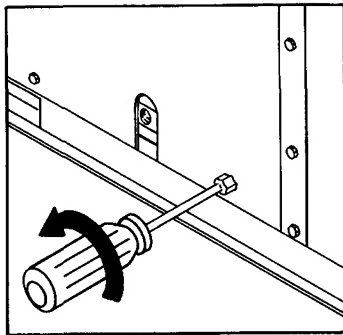
STEP 1



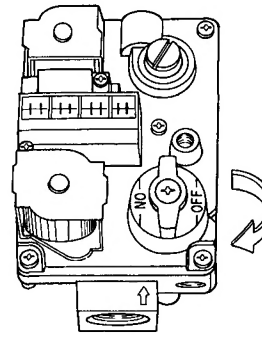
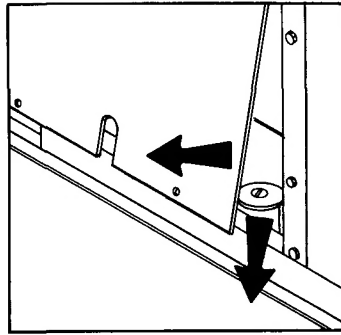
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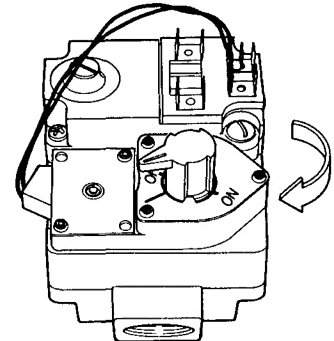
STEP 3



STEP 4

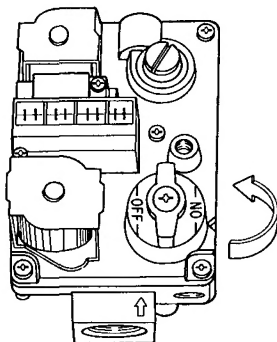


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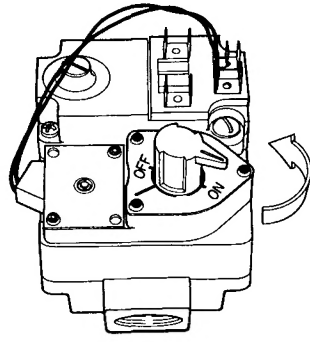


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STEP 5

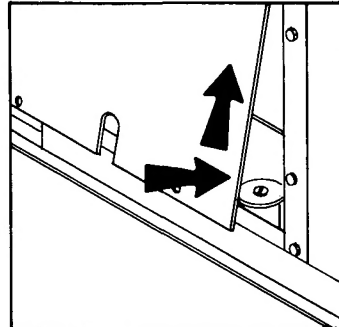


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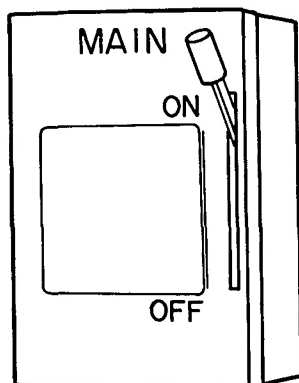
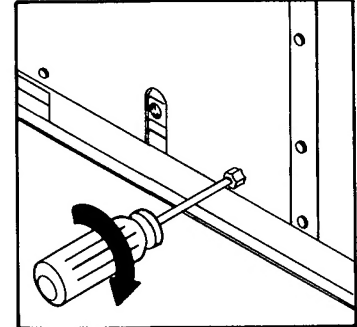


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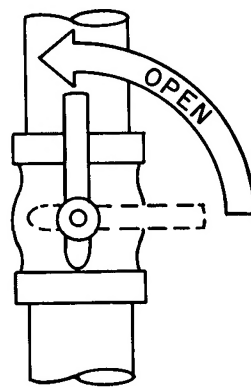
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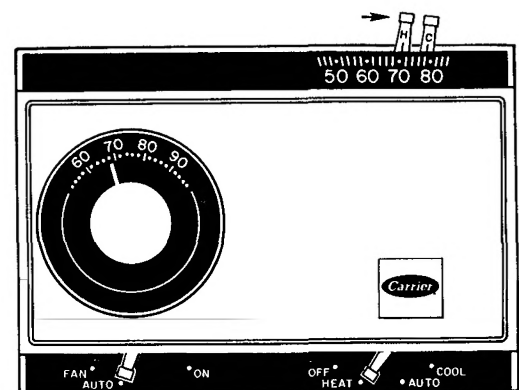
STEP 7



STEP 8



STEP 9



STEP 10

Fig. 2 – To Light Unit

## TO SHUT UNIT OFF

### ⚠ WARNING

1. Do not turn off the electrical power to unit without first turning off the gas supply.
2. Never attempt to manually light the main burners on unit with a match, lighter, or any other flame. If the electric sparking device fails to light the main burners, refer to the following shutdown procedures, then call your dealer as soon as possible.

Failure to follow these procedures can result in serious fire or personal injury.


Refer to Fig. 3 while proceeding with the following steps.

**Step 1** — Set room thermostat to lowest temperature setting and set SYSTEM switch to OFF.

**Step 2** — Close the external manual gas valve.

**Step 3** — Turn off electrical power supply to unit.

**Step 4** — Remove the burner compartment access panel.

**Step 5** — Turn the control dial on the gas valve clockwise  to the OFF position.

**Step 6** — Replace the burner compartment access panel.

**Step 7** — If unit is being shut down because of a malfunction, call your dealer as soon as possible.

If unit is being shut down because the heating season has ended, restore electrical power to the unit to ensure operation of the cooling system during the cooling season.

Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the unit before shutting off the electrical supply.

Do not use this unit if any part has been under water. Immediately call a qualified service technician to inspect the unit and to replace any part of the control system and gas control which has been under water.

## MAINTAINING YOUR UNIT

All maintenance should be handled by skilled, experienced personnel. Your dealer can help you establish a standard procedure.

For your safety, keep the area around the unit clear and free of combustible materials, gasoline and other flammable liquids and vapors.

To assure proper functioning of the unit, the flow of combustion and ventilating air must not be obstructed from reaching the unit. Clearance of at least 3 ft on flue and condenser sides and 6 in. on all other sides is required.

## ROUTINE MAINTENANCE AND CARE FOR THE EQUIPMENT OWNER

Before proceeding with those things you might want to maintain yourself, please carefully consider the following:

### ⚠ WARNING

1. TURN OFF GAS SUPPLY AND THEN ELECTRICAL POWER TO YOUR UNIT BEFORE SERVICING OR PERFORMING MAINTENANCE.
2. Do not turn off electrical power to this unit without first turning off the gas supply.
3. When removing access panels or performing maintenance functions inside your unit, be aware of sharp sheet metal parts and screws. Although special care has been taken to reduce sharp edges to a minimum, be extremely careful when handling parts or reaching into the unit.

**Air Filter(s)** — Air filter(s) should be checked at least every 3 or 4 weeks and changed or cleaned whenever they become dirty. Table 1 indicates the correct filter size for your unit. See Fig. 4 for filter access door location.

To replace or inspect filters:

1. On 48DJD,DJE units, lift open the filter access door and lift and pull the filter track until it falls toward you. On 48LJD,LJE units, remove screws on filter access panel and remove panel. Lift up filter track and pull track until it falls toward you. If the 48LJD,LJE unit has a field-installed accessory filter access door, follow instructions above for 48DJD,DJE units.
2. Remove the left filter by pulling outward from the track.
3. Slide the right filter over to the left and then remove.

When installing filters, note the direction of airflow arrows on the filter frame.

**NOTE:** It is recommended that filters be field installed outside of the unit on horizontal economizer/two-position damper applications. Otherwise, the economizer/two-position damper will have to be partially removed to access the filters. The area of the field-installed filters should be equal to the area of the factory-installed filters as shown in Table 1.

If you have difficulty in locating your air filter, or if you have questions concerning proper filter maintenance, contact your dealer for instructions. When replacing your unit filters, always use the same size and type of filter that was originally supplied by the installer.

Units with outdoor air capability have a cleanable filter for the outdoor air. This filter should be checked annually and cleaned as necessary with steam or hot water and a mild detergent. Do not use disposable filters in place of cleanable filters.

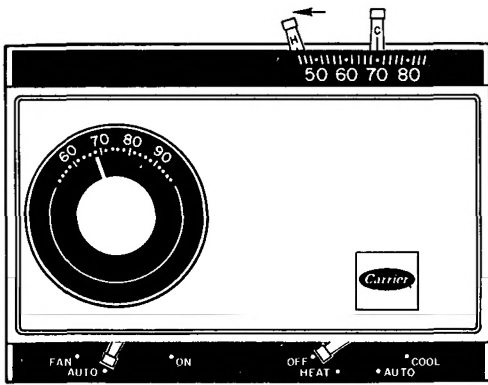
### ⚠ WARNING

Never operate your unit without filters in place. Failure to heed this warning may result in damage to the blower motor and/or compressor. An accumulation of dust and lint on internal parts of your unit can cause loss of efficiency and, in some cases, fire.

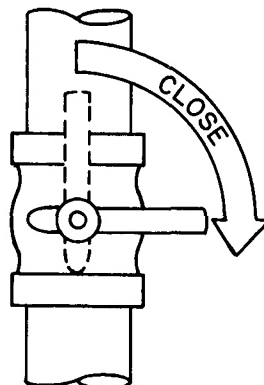
**Table 1 — Indoor-Air Filter Data**

UNIT SIZE 48DJD/DJE 48LJD,LJE	INDOOR-AIR FILTERS (Disposable Fiberglass)	
	Quantity	Size (in.)
004-007	2	16 x 25 x 2
008,009	4	16 x 20 x 2
012,014	4	20 x 20 x 2

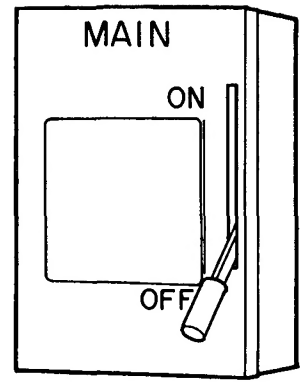
**NOTE:** Replacement filters should be UL (Underwriters' Laboratories) certified or equivalent.



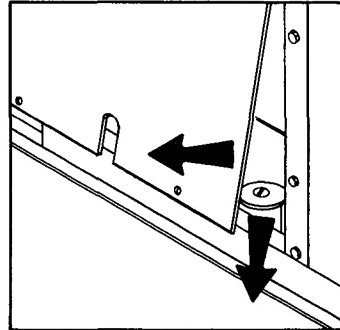
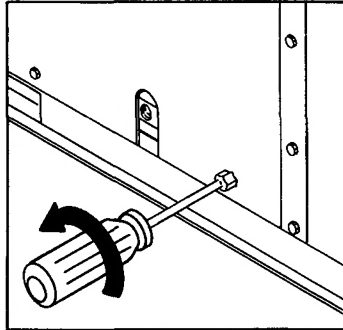
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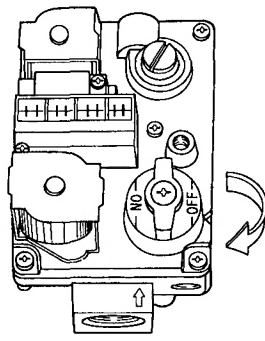
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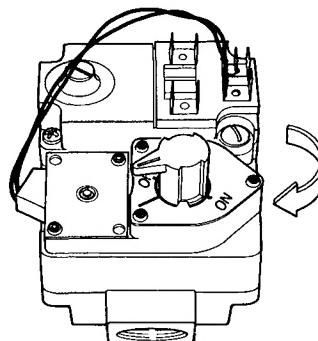
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STEP 4

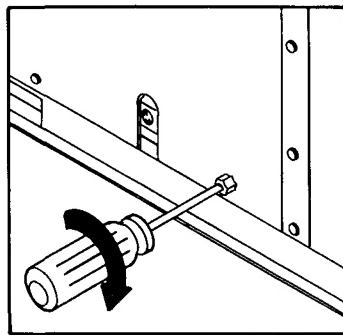
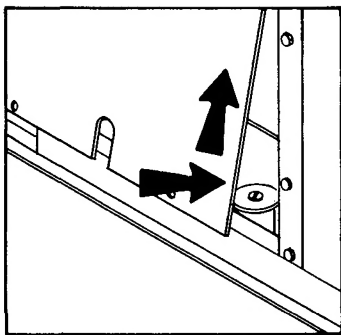


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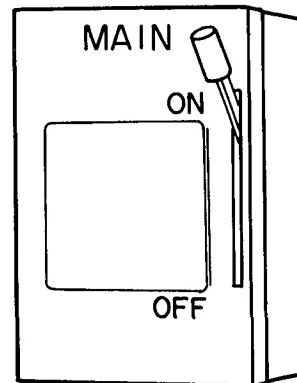


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STEP 5

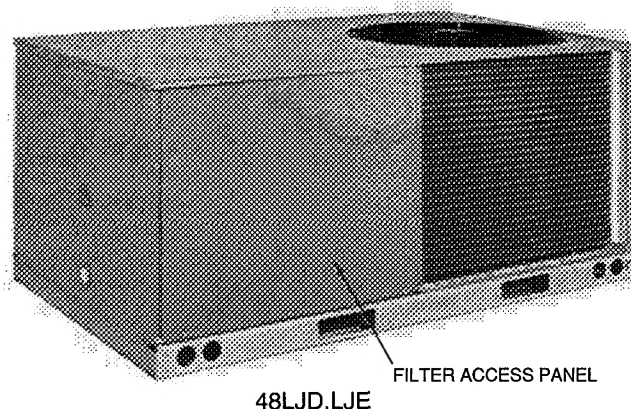
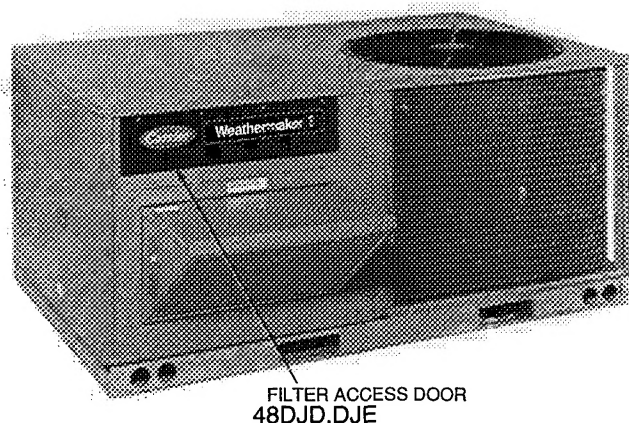


STEP 6



STEP 7

Fig. 3 – To Shut Unit Off



**Fig. 4 — Filter Access Door/Panel Location**

**Heat Exchanger** — To ensure dependable and efficient heating operation, the heat exchanger should be checked by a qualified maintenance person before each heating season, and cleaned when necessary. This checkout should not be attempted by anyone not having the required expertise and equipment to do the job properly. Checking and/or cleaning the heat exchanger involves removing the gas controls assembly and the flue collector box cover and, when completed, reinstalling the gas controls assembly for proper operation. Also, the flue collector box cover must be replaced correctly so that a proper seal is maintained. Contact your dealer for the required periodic maintenance.

**Fans, Belts, and Fan Motor** — Periodically check the condition of the fan wheels and housings, belt tension and fan motor shaft bearings. No lubrication of condenser or evaporator fan bearings or motors is required or recommended.

**Evaporator and Condenser Coils** — Cleaning of the coils should be done by qualified service personnel. Contact your dealer for the required annual maintenance.

**Condensate Drain** — The drain pan and condensate drain line should be checked and cleaned at the same time the cooling coils are checked by your dealer.

**Compressor** — All compressors are factory shipped with a normal charge of the correct type of refrigeration-grade oil in them and should not require additional oil.

#### **Condenser Fan**

##### **⚠ WARNING**

Do not poke sticks, screwdrivers, or any other object into revolving fan blades. Severe bodily injury may result.

The fan must be kept free of all obstructions to ensure proper cooling. Contact your dealer for any required service.

**Electrical Controls and Wiring** — Electrical controls are difficult to check without proper instrumentation; therefore, if there are any discrepancies in the operating cycle, contact your dealer and request service.

**Refrigerant Circuit** — The refrigerant circuit is difficult to check for leaks without the proper equipment; therefore, if inadequate cooling is suspected, contact your local dealer for service.

**Combustion Area and Vent System** — The combustion area and vent system should be visually inspected before each heating season. The normal accumulation of dirt, soot, rust, and scale can result in loss of efficiency and improper performance if allowed to build up.

##### **⚠ CAUTION**

If your unit makes any unusual or especially loud noises during heating, shut down the heating section and call your dealer.

See Fig. 4 and 5 and proceed as follows to inspect the combustion area and power-venting system of your unit.

1. Turn off gas supply to your unit.
2. Turn off electrical power to your unit.
3. Remove burner compartment access panel.
4. Using a flashlight, carefully inspect the burner areas for dirt, soot, rust or scale.

##### **⚠ CAUTION**

If dirt, soot, rust, or scale accumulations are found, call your dealer and do not operate your heating section.

5. When you have completed your inspection, follow the start-up procedures in this manual to restore your unit to operation.
6. Observe unit heating operation.

##### **⚠ WARNING**

Components in heat section may be hot after unit has been started up. When observing flame, be careful not to get close to or touch heating components or serious personal injury may result.

Watch the burner flame to see if it is bright blue. If you observe a suspected malfunction or that the burner flame is not bright blue, call your dealer.

7. Replace burner compartment access panel.

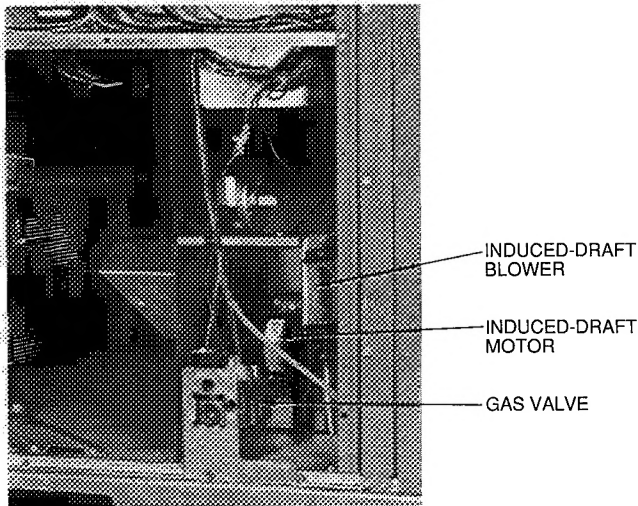
**Unit Panels** — After performing any maintenance or service on the unit, be sure all panels are securely fastened in place to prevent rain from entering unit cabinet and to prevent disruption of the correct unit airflow pattern.

## REGULAR DEALER MAINTENANCE

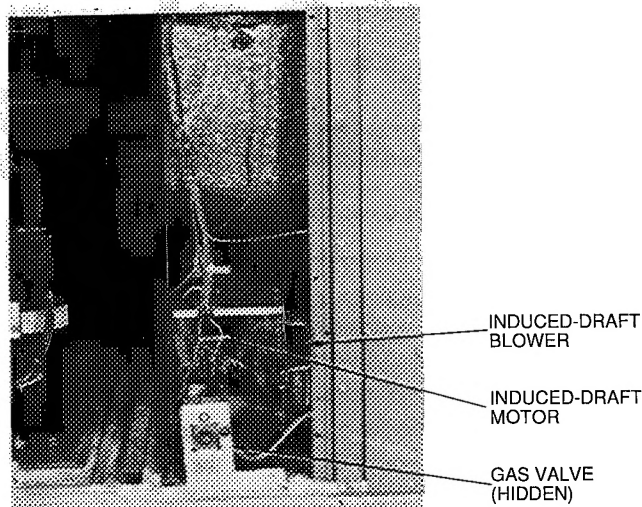
In addition to the type of routine maintenance you might be willing to perform, your unit should be inspected regularly by a properly trained service technician. An inspection (preferably each year, but at least every other year) should include the following:

1. Inspection of all flue product passages — including the burner, heat exchanger, and flue collector box.
  2. Inspection of all combustion- and ventilation-air passages and openings.
  3. Close inspection of all gas pipes leading to and inside your unit.
  4. Inspection, and if required, cleaning of the condenser and evaporator coils.
  5. Inspection, and if required, cleaning of the condensate drain pan.
  6. Inspection and cleaning of blower wheel housing and motor.
  7. Inspection of all supply- and return-air ducts for leaks, obstructions, and insulation integrity. Any problems found should be resolved at the time of inspection.
  8. Inspection of the unit base for cracks, gaps, etc., which may cause a hazardous condition.
  9. Inspection of the unit casing for signs of deterioration.
  10. Inspection of all electrical wiring and components to assure proper connection.
  11. Inspection for leaks in the refrigerant circuit. Pressure-check to determine appropriate refrigerant charge.
  12. Operational check of the unit to determine working conditions. Repair or adjustment should be made at the time of inspection.
- Your servicing dealer may offer an economical service contract that covers seasonal inspections. Ask for further details.

Complete service instructions can be found in the unit Installation, Start-Up and Service Instructions.



a. 48DJD005-007, 48DJE, LJE004-007,  
48LJD004-007



b. 48DJD/LJD008-014, 48DJE, LJE008-012

**Fig. 5 — Heat Section Detail**

## **BEFORE YOU CALL FOR SERVICE, CHECK FOR SEVERAL EASILY SOLVED PROBLEMS**

If insufficient heating or cooling is suspected:

( ) Check for sufficient airflow. Check the air filter for dirt. Check for blocked return- or supply-air grilles. Be sure they are open and unobstructed. If these checks do not reveal the cause, call your servicing dealer.

If your unit isn't operating at all, check the following list for easy solutions:

( ) Check to be sure that your thermostat temperature selector is set above the indoor temperature during the heating season, or below the indoor temperature during the cooling season. Be sure the SYSTEM switch is in the proper HEAT or COOL position and not in the OFF position.

( ) Is the electrical supply switch ON? Are any fuses blown, or has the circuit breaker tripped?

( ) During the heating season, check the external manual shutoff valve. Is this lever parallel with the pipe, indicating that the valve is open? Or is the lever at the right angle, indicating that the valve is closed? If closed, has the gas been shut off for safety reasons? Otherwise, you may open the valve and follow the start-up procedures listed in this manual.

**NOTE:** Before proceeding with the next check, turn OFF the electrical power supply to the unit. Remove the control access door.

( ) During the heating season, check the control dial on the gas valve. Is it in the ON position? If it is not, be sure it has not been turned off for the purpose of safety. If nothing else seems to be amiss, follow the start-up procedures in this manual.

( ) If your unit still fails to operate, call your servicing dealer for troubleshooting and repairs. Specify the model and serial numbers of your unit. (Record them in this manual in the space provided.) If the dealer knows exactly which unit you have, he may be able to offer suggestions over the phone, or save valuable time through knowledgeable preparation for the service call.

## **IN CASE OF TROUBLE**

If, after performing the above, unit performance is unsatisfactory, shut off the unit and call your dealer.

Dealer's Name \_\_\_\_\_

Telephone No. \_\_\_\_\_

Unit Model \_\_\_\_\_

Unit Serial Number \_\_\_\_\_

